

REMARKS

Reconsideration and allowance of the subject application are respectfully requested. Claims 9, 11 and 16 have been amended and claims 1-8 and 13-15 are withdrawn from consideration. Claims 1-16 are pending in the application. Applicant submits that the pending claims should be allowed as discussed below.

I. Summary of the Office Action

Claims 9, 10 and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Someno et al. (US Patent Application Publication No. 2002/0051179; hereinafter “Someno”) in view of Gomi (US Patent No. 7,190,469).

Claims 11-12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Someno in view of Gomi and further in view of Watanabe et al. (US Patent Application Publication No. 2002/0105669; hereinafter “Watanabe”).

II. Claim Rejections under 35 U.S.C. § 103(a)

A. Claims 9, 10 and 16

The Examiner rejects claims 9, 10 and 16 under 35 U.S.C. § 103(a) as being unpatentable over Someno in view of Gomi.

By this Amendment, Applicant has amended claims 9 and 16 to more particularly point out the invention. In particular, amended claims 9 and 16 recite a controller instead of “printing instruction means,” and “cancellation means.” Referring to FIG. 1 and page 8 of the specification, a controller (13) performs the printing instruction and cancellation. Further,

amended claims 9 and 16 recite a storage device that stores the updated status information received from the printer and the resumption of printing based on job status information transmitted from a host apparatus. Support for the amendment may be found in at least FIGs. 1, 6 and 8 (S2, S10-S14, S44, S45) and their relevant description of the application.

Claim 9 is directed to a host apparatus creating print data to be sent to a printer and recites (emphasis added):

A host apparatus creating print data to be sent to a printer, the host apparatus being characterized in that it comprises:

a controller that sends the print data to the printer and instructs the printer to perform printing and in the event that a prescribed print cancellation condition of the host apparatus exists, requests cancellation of printing in units of pages at the printer such that printing continues until printing of a page currently being printed is completed, and stops upon the completion of the printing of the page, job status information of the printer being updated after the completion of the printing of the page, and

a storage device that stores the updated job status information of the printer received from the printer.

wherein the host apparatus transmits the stored job status information to the printer in the event that the prescribed print cancellation condition of the host apparatus is eliminated, and

wherein the controller, in the event that the prescribed print cancellation condition of the host apparatus is eliminated, requests the printer to resume printing an unprinted page subsequent to the completed page based on the job status information transmitted from the host apparatus.

In the Office Action, the Examiner asserts that Someno (paragraphs [0011], [0041], [0042], [0065] and [0073]) and Gomi (col. 6, lines 7-13 and col. 14, lines 8-34) disclose all the elements of the previous claim 9.

Someno, however, does not teach “requests cancellation of printing in units of pages at the printer such that printing continues until printing of a page currently being printed is completed, and stops upon the completion of the printing of the page,” as recited in amended claim 9.

Someno discloses a printing system to reduce time duration that printing data is held in an external storing device, and to ensure to stop transfer of printing data after detecting a printer cancellation command (paragraphs [0007]-[0011]). Referring to FIGs. 1-3 of Someno, a printer driver 31 divides printing data into a plurality of sub-files 70 and stores the sub-files in an external storing device, and a printer processor 42 reads in the sub-files in the unit of packet and transmits the packet data to a printer 20 (paragraphs [0049], [0050] and [0068]).

Regarding cancellation of printing, paragraphs [0065], [0073] and [0074] of Someno describe as follows (emphasis added):

[0065] Now, a process in the case that the printer driver 31 receives a cancellation instruction designated by a user will be described. The printer driver 31 writes a printer controlling command indicating cancellation into the print controlling command file 71 at once upon receiving a print cancellation instruction from a user. Thus, the cancellation instruction command can be formed quickly.

[0073] When a print cancellation instruction is added to the print control command file 71 as a result of the reading, transfer of packets to the printer 20 after the cancellation would be stopped and a page ending command and job ending command would be transmitted to the printer 20, so that printing would end.

[0074] The above printing cancellation process enables detection of cancellation for every packet process, and printing can be stopped without transferring to the printer 20

packets after detection. That is, it become possible to perform cancellation of printing quickly and certainly.

In alleged support of the rejection, the Examiner specifically contends that the above cited paragraph [0073] of Someno teaches “requests cancellation of printing in units of pages at the printer such that printing continues until printing of a page currently being printed is completed,” as recited in claim 9.

However, the cited paragraph [0073] of Someno simply indicates that the printer processor 42 stops transferring the packet data to the printer upon reading the printing cancellation command from the print control command file 71 (FIG. 1). The stopping of transfer of the packet data does not teach printing to be cancelled in units of pages at the printer as required by the claimed invention.

In addition, the transmitting of “a page ending command” and “a job ending command” to the printer does not teach “requests cancellation of printing in units of pages at the printer such that printing continues until printing of a page currently being printed is completed, and stops upon the completion of the printing of the page” of claim 9.

Referring to FIG. 2 of Someno, the sub-file 70 comprises a header portion 71, a main body portion 72 including packet portions, and a footer portion 73. The printer processor 42 reads in the sub file in a unit of packet and transmits the packet data portions to the printer 20. Someno in FIG. 3, discloses a process of dividing printing data into sub-files 70a, 70b, 70c where the sub-file 70c includes PAGE END and JOB END. In Someno, if the printer processor 42 detects the cancellation command, it stops transferring packets to the printer and transmits a page ending command to the printer (FIG. 1). Thus, the page ending command is transmitted to

the printer even when the packet data for one full page has not been transmitted to the printer. However, Someno does not disclose that the page ending command instructs the printer to cancel the printing by unit of pages, i.e., “cancellation of printing in unit of pages.” In fact, the transmitting of the page ending command does not indicate how the printer handles the printing of a page being currently printed. Therefore, Someno fails to teach “requests cancellation of printing in units of pages at the printer such that printing continues until printing of a page currently being printed is completed, and stops upon the completion of the printing of the page,” as recited in claim 9.

Further, as the Examiner correctly recognizes, Someno does not disclose the process of requesting the printer to resume printing after the print cancellation condition is eliminated as recited in claim 9.

Moreover, Gomi does not teach “the host apparatus transmits the stored job status information to the printer in the event that the prescribed print cancellation condition of the host apparatus is eliminated,” and “the controller, in the event that the prescribed print cancellation condition of the host apparatus is eliminated, requests the printer to resume printing an unprinted page subsequent to the completed page based on the job status information transmitted from the host apparatus,” as recited in amended claim 9.

On page 3 of the Office Action, the Examiner cites column 6, lines 7-13 and column 14, lines 8-34 and FIG. 17 of Gomi as allegedly disclosing the resumption of the printing.

It should be noted that amended claim 9 clearly recites the resumption of printing based on job status information transmitted from the host apparatus.

Gomi relates to printing system for interrupt print job. FIGs. 8 and 9 of Gomi disclose a printing system comprising a host computer (200) for generating a print job and a printer (300) for performing printing based on the print job.

The cited portion (col. 6, line 7-13) describes the functions of a utility (205) of the host computer, i.e. the utility allows a user to check the status of the printer (300), to cancel the print job, to interrupt the print job and to resume the print job. However, column 6, lines 7-13 of Gomi does not teach that the resumption of the print job is performed based on the job status information transmitted from the host computer.

On the other hand, the cited portion (col. 14, lines 8-34) and FIG. 17 of Gomi describes interruption and resumption of printing at the printer. However, the portion does not disclose that the host computer transmits updated job status information to the printer and the printer resumes printing based on the job status information transmitted from the host computer. Instead, Gomi describes that the printer resumes the printing based on job information stored in a device database (305) and information stored in a job table(313) of the printer (FIG. 8). Column 14, lines 8-34 of Gomi describes as follows (emphasis added):

At the step 1705, the number of pages which have been ejected during the interrupted print job is acquired from the printer engine 309 and stored in the device database 305 as job information for that print job.

At the step 1706, the job ID of an interrupt-instructed print job is added to the head of the job table 313. Then, the pointer 1601 moves to point to the job ID of this print job. The job ID is notified by the job pre-processor 303 along with an interrupt instruction. Thus, the job table 313 shows that the interrupt-instructed print job is the next print job to be processed.

Next, at the step 1707, the PDL translator 306 is instructed to resume. Then the PDL translator 306 looks at the pointer 1601 in the job table 313 and takes out the PDL data for a print job pointed by the pointer 1601 in the job table 313 (that is, an interrupt-instructed print job) from the job spooler 304 for translation. At the step 1708, the drawer

308 is instructed to resume and lastly, at the step 1709, the printer engine is instructed to resume.

As such, it is quite clear that Gomi's printer resumes the printing based on the job information stored in the printer during the interrupted print job rather than job status information received from the host computer. Accordingly, Gomi fails to teach "the host apparatus transmits the stored job status information to the printer in the event that the prescribed print cancellation condition of the host apparatus is eliminated," and "the controller, in the event that the prescribed print cancellation condition of the host apparatus is eliminated, requests the printer to resume printing an unprinted page subsequent to the completed page based on the job status information transmitted from the host apparatus," as recited in amended claim 9.

Moreover, Someno and Gomi do not disclose "a storage device that stores the updated job status information of the printer received from the printer," as recited in amended claim 9.

With regard to the storage device, the Examiner contends that Watanabe (paragraph [0109]) discloses storage means for storing interruption location information as recited in claim 11 (Office Action at page 6).

The cited paragraph [0109] of Watanabe describes that when a power capacity of a camera is reduced to a predetermined level, printing of a printer is halted and interrupt information is stored in an EEPROM (504) of a camera (FIG. 5). However, it does not indicate that the camera receives the interrupt information from the printer. Instead, Watanabe merely states that the camera stores interrupt information in the camera when a power level reduces to the predetermined level. Thus, Watanabe fails to disclose "a storage device that stores the

updated job status information of the printer received from the printer,” as recited in amended claim 9.

Accordingly, Applicant respectfully submits that claim 9 is patentable over the references because the references do not teach or suggest all the elements of amended claim 9.

Claim 16 recites features analogous to those of claim 9. Therefore, claim 16 is patentable over the references for the reasons similar to those for claim 9.

Dependent claim 10 should be allowable at least because of its dependency on claim 9.

B. Claims 11 and 12

The Examiner rejects claims 11 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Someno in view of Gomi and further in view of Watanabe.

However, Someno, Gomi and Watanabe do not teach or suggest all the elements of claim 9 on which claims 11 and 12 depend as discussed with respect to claim 9. Accordingly, Applicant submits that claims 11 and 12 should be allowed at least because of their dependency on claim 9.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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